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Alternate Medicine Recommendation

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ABSTRACT

On the Internet, where the number of choices is overwhelming, there is a need to filter, prioritize and efficiently deliver relevant information to alleviate the problem of information overload, which has created a potential problem for many Internet users. Alternate Medicine System solves this problem by searching through a large volume of medical information to provide users with filters and services. This project explores the different characteristics and potentials of different recommendation techniques in recommendation systems to serve as a compass for research and practice in the field of medical recommendation systems. In this project, we have used a dataset over 100+ medicines from different companies and brands to do recommendation based on the content of medicine and then filter it based on rating and cost-based analysis. Through experimental results, we have found that more than 95% of the medicines have a lower cost based alternative available with a higher rating.

Keywords— *Alternate, Medicine, Recommendation*

1. INTRODUCTION

Alternate Medicine System research has made significant advances over the past decades and has seen wide adoption in electronic commerce. Recently, a variety of types of side information (e.g., social friends, item content) has been incorporated into the Alternate Medicine System to further enhance their performance, especially the well-recognized problem of data sparsity. However, most of the existing approaches have only investigated the value of a single type of side information at a time, such as social trust, friendship, or item contents.

It is necessary to build new theories, techniques, and methods to exploit multi-dimensional (homogeneous and heterogeneous) side information to provide users with better-personalized recommendations. At the same time, the large volume and variety of side data and the velocity of incremental updates in live systems provide challenges for the scalable mining and application of user preferences.

It is evident that the health of an individual significantly affects her quality of life. For this reason, finding appropriate physicians to diagnose and treat medical conditions is one of the most important decisions that a patient must make. Currently, patients have two options that can aid them in addressing this problem, but both are of limited applicability. The first option is to rely on friends and family for advice on where to seek treatment. While recommendations produced by a close circle of friends can be assumed to be very trustworthy, the likelihood that friends and family have experience with the same medical history as the patient is quite low.

2. SYSTEM ARCHITECTURE

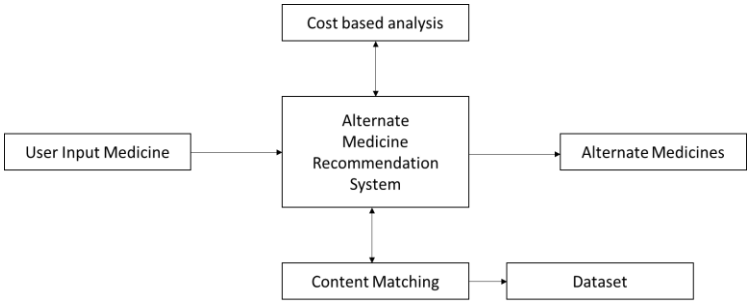

Fig. 1: System Architecture

2.1 Dataset Generation

Medicine dataset needs to be generated for multiple medicines having the same ratio which can be provided as an alternative to each other. Also for cost analysis, it is necessary to know the market cost for such medicines. This dataset will be created for a total of 50 medicines.

2.2 Dataset Preprocessing

As dataset gets generated it is necessary to preprocess it for any null values if provided and the data should be cleaned and stored into Database for further processing.

2.3 Data Clustering based on contents and costing

Data clustering needs to be done for grouping similar medicines based on their contents and also it is required for cost-based analysis as well.

2.4 Medicine classification and recommendation

At last, ones the user inputs some medicine, there is a requirement of finding alternate medicines for users which can only be done using a classification of input medicines using some classification algorithm.

3. RESULT ANALYSIS

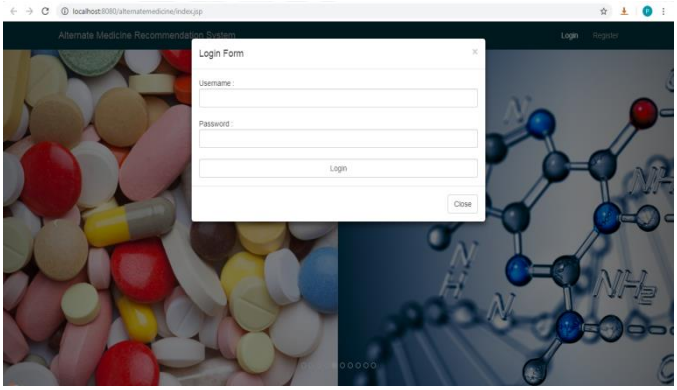

Fig. 2: Login Form

Login Page in Home page after clicking login option, Login form gets appear containing tow details username and password this login option is used by users who are already been registered.

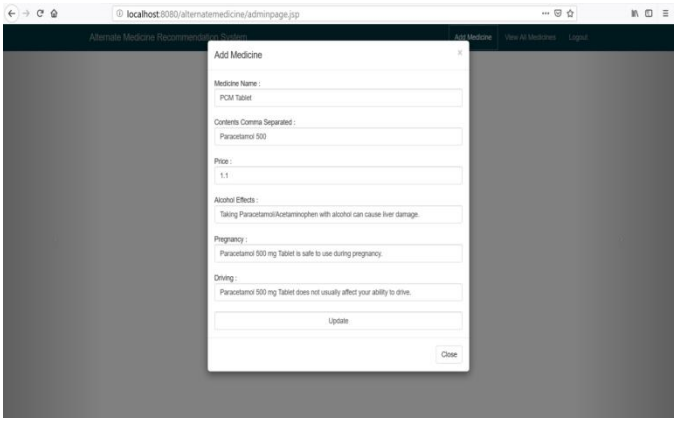

Fig. 3: Add medicine

This is the page of add medicine. On this page, the name of medicine, contents of medicine, and also show the price of medicine and there are some side effects of alcoholism, pregnancy, and driving. After this add medicine page will go to the next page that is view all medicine.

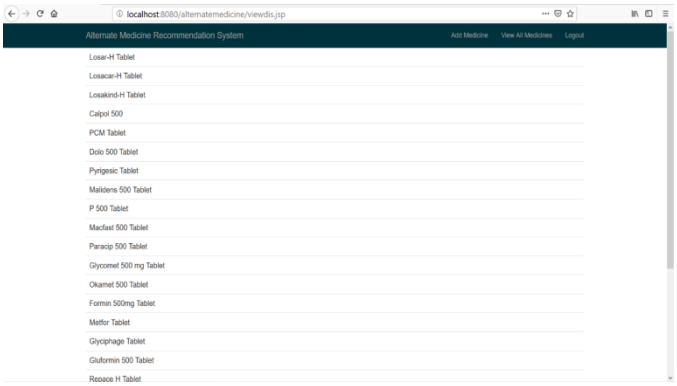

Fig. 4: View medicine

This is the page of view all medicine. This page shows the all medicine which registers in Dataset and also the logout button.

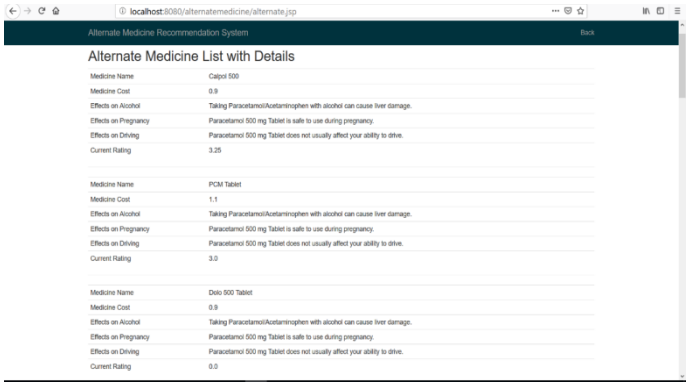

Fig. 5: Alternate medicine list

This web page will show a list of all the medicines with similar contents about the medicine entered, which is available in the database. It will complete information about the medicine like a name of medicine company as well as medicine of cost and the effects of that medicine. And recommend for alternate medicine.

4. CONCLUSION

This project explores the strong application of data mining in the field of medical recommendation systems. In this project, we have used a dataset over 100+ medicines from different companies and brands to do recommendation based on the content of medicine and then filter it based on rating and cost-based analysis. Through experimental results, we have found that more than 95% of the medicines have a lower cost based alternative available with a higher rating. We have used the random forest algorithm for the classification of medicines based on the costing and rating of the medicines provided by users. Also, we have made a comparison of three different algorithms k-NN decision tree and random forest algorithms for the classification of medicines in particular alternatives.

5. REFERENCES

[1] MacLennan A, Myers S, Taylor A: The continuing use of complementary and alternative medicine in South Australia: costs and beliefs in 2004. Med J Aust. 2006, 184: 5

[2] Xue CCL, Zhang AL, Lin V, Da Costa C, Story DF: Complementary and alternative medicine use in Australia: a national population-based survey. J Altern Complement Med. 2007, 13: 643-650. 10.1089/acm.2006.6355.

[3] Braun L: Integrative Pharmacy: threat or fantasy?. J Compl Med. 2009, 8: 41-42.

[4] Semple SJ, Hotham E, Rao D, Martin K, Smith CA, Bloustein GF: Community pharmacists in Australia: barriers to information provision on complementary and alternative medicines. Pharm World Sci. 2006, 28: 366-373.

[5] Braun L, Tiralongo E, Wilkinson J, Spitzer O, Bailey M, Poole S, Dooley M: Perceptions, use, and attitudes of pharmacy customers on complementary medicines and pharmacy practice. BMC Complement Altern Med. 2010, 10: 38-10.1186/1472-6882-10-38.

